

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
24 June 2004 (24.06.2004)

PCT

(10) International Publication Number
WO 2004/052243 A1

(51) International Patent Classification?: **A61F 2/30,**
2/46, A61L 31/04

(21) International Application Number:
PCT/GB2003/005324

(22) International Filing Date: 5 December 2003 (05.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0228575.7 7 December 2002 (07.12.2002) GB

(71) Applicant (for all designated States except US): **DEPUY
INTERNATIONAL LIMITED** [GB/GB]; St Anthony's
Road, Beeston, Leeds LS11 8DT (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **TWOMEY,**

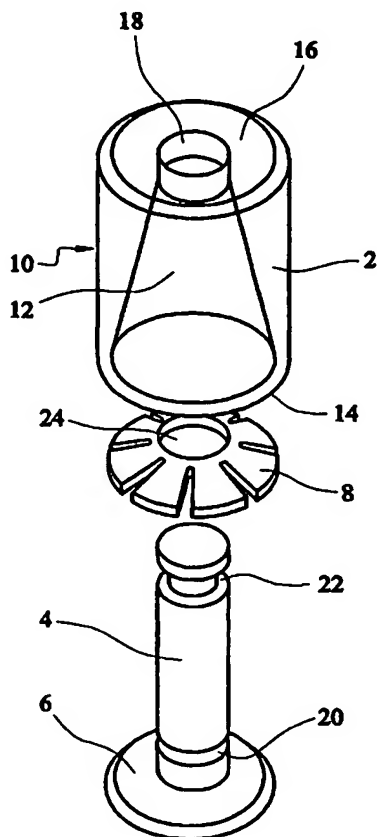
Richard [GB/GB]; Tudor Gables, Forestmoore Road,
Knaresborough HG5 8JY (GB). **WATKINS, Neil**
[GB/GB]; 36 Lady Acre Close, Lymm, Cheshire WA13
0SR (GB). **KOWALSKI, Rick** [GB/GB]; 1 Minster Park,
Cottam, Preston PR4 0BY (GB). **EWANS, John** [GB/GB];
JED Developments, Capital House, Westbourne Street,
High Wycombe HP11 2PZ (GB).

(74) Agent: **BELCHER, Simon, James;** Urquhart-Dykes &
Lord LLP, Tower House, Merrion Way, Leeds LS2 8PA
(GB).

(81) Designated States (*national*): AE, AG, AI, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC,
SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

[Continued on next page]

(54) Title: A BONE CEMENT PLUG



(57) Abstract: A bone cement plug for fitting into the intramedullary canal within a bone to restrict flow of bone cement during surgery comprises a sleeve (2) whose wall is circumferentially continuous and has an outer surface (10) for contacting the wall (32) of the canal. The sleeve (2) is formed from a deformable material so that it can be expanded transversely to contact the surface (32) of the canal. The plug includes an expander which can be drawn through the cavity (12) in a direction generally along the axis of the sleeve (2), to cause the sleeve (2) to expand transversely to contact the surface (32) of the canal. The inner surfaces of the wall converge towards the end (16) of the sleeve (2) towards which the expander is drawn to cause the sleeve (2) to expand to contact the surface (32) of the canal.

- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— with international search report